Contemporary White Collar Crime Research: A Survey of Findings Relevant to Personnel Security Research and Practice

by

M.S. Krause, Ph.D.

The Personnel Security Managers' Research Program

August 2002

Executive Summary

BACKGROUND

The relative infrequency of espionage has severely limited the number of potential subjects available for research designed to shed light on risk factors for espionage. As such, personnel-security-minded researchers have been forced to conduct studies of espionage perpetrators that are inherently limited in scope and sophistication of data analysis. Given these significant constraints, researchers have turned to other areas of social science scholarship to uncover suitable analogues to espionage and espionage perpetrators. Extant sociological, psychological, and criminological research on the nature of white-collar crime and its offenders has emerged as the most salient theoretical and empirical analogue to date. As such, the current document was designed to survey existing open source literature on white collar crime with special attention to offender characteristics, risk and buffering factors, motives, and prevention strategies.

FINDINGS

Construct Definition

After considerable debate, scholars have crafted a definition of white collar crime that is generally accepted. This definition divides the metaconstruct of white collar crime into two, more specific, categories: organizational crime and occupational crime. Given the interests of personnel security personnel, this paper will focus on the segment of crimes known as occupational crime, or crime committed by an individual for personal gain in the course of an otherwise legitimate occupation (Coleman, 1989).

Theory

Numerous theories of white collar crime have proliferated in the years since Edwin Sutherland first coined the term. Neutralization theory and integrationist theory have emerged as the two most compelling contemporary theories. Neutralization theory focuses on the role of neutralizations (i.e., rationalizations) as

both a motive and justification for involvement in white collar crime. This theory further suggests that neutralizations are shaped by individual beliefs, the social environment, and corporate/organizational practices. Integrationist theory advanced by Coleman (1989, 2000) synthesizes neutralization theory and other complementary social-psychological theory to provide a more complex explanation of white collar crime. In so doing, his theory identifies neutralizations, motive, and access/opportunity as requisite conditions for occupational crime. Both theories are clearly relevant to explaining the behaviors of recently convicted spies, and hold great promise for framing future personnel security research.

Offender Characteristics

Researchers have devoted considerable time and effort to identifying the personal determinants of occupational crime involvement. Together, these efforts have clarified the sociodemographic characteristics and motives of occupational crime perpetrators. These findings have also underscored the personal and professional parallels among espionage perpetrators and white collar perpetrators.

Sociodemographics: Occupational crime perpetrators tend to be male, Caucasian, and employed in positions of moderate power and/or status. Approximately 40 percent have a prior criminal arrest. Average age of onset of offending is 35 to 40 years, while chronic/recidivistic offenders begin offending at an earlier age (average age of onset is 24). Offenders who perpetrate more complex offenses typically do so later in life because of the level of access, task mastery, and knowledge required.

Personality Characteristics: The following personality characteristics have been found to correlate positively with white collar crime involvement: external locus of control, high levels of competitiveness, low levels of fulfillment, risk-seeking, and impulsivity. Each of these characteristics is believed to lead to criminality by 1) increasing vulnerability to contextual pressures, and 2) engendering readiness to claim assets of "uncertain ownership" (capitalize upon opportunity/access).

Comparison to Street Criminals: Occupational crime perpetrators are likely to be older than street criminals at the time of the offense. They are more likely to be employed. They are less likely to demonstrate a diverse pattern of offending and

are less likely to commit property and violent crimes. They also report higher educational attainment, better school adjustment, and less involvement in illegal drug use than common/street criminals

Motives: The most commonly identified motives for occupational crime involvement include: fear of falling (losing status or assets), greed, ideology, and revenge (Wheeler, 1992). Financial motives are the most common among occupational crime offenders, and Cressey (1953) conceptualized occupational crime as a solution to "non-shareable problems." Notably, female offenders are more likely to be motivated by a desire to sustain or repair significant/intimate relationships.

Buffering Factors

In an effort to minimize the scope and impact of occupational crime, researchers increasingly have begun to examine the protective, or buffering factors that prevent criminal involvement in the face of opportunity and motive. Research in the fields of business management, psychology, and sociology has identified organizational commitment, employee loyalty, and a subset of personality characteristics (e.g., conscientiousness, agreeableness, and emotional stability) as important buffers against occupational crime involvement.

Lessons Learned: Prevention Strategies

Corporate occupational crime prevention efforts have met with limited success, especially in the retail sector. These prevention strategies fall into one of the three following categories: 1) security and prosecution, 2) screening and education, and 3) reporting and whistleblowing. Evaluation of these strategies has documented the significant limitations inherent in employee screening and has found more support for awareness/education programs, employee reporting, and employee-centered personnel management strategies.

CONCLUSIONS

The private sector has grappled with the problem of occupational crime for decades and has unsuccessfully struggled to eliminate occupational crime. The limited success of prevention programs stems in part from the multiply-determined,

complex nature of occupational crime and the environmental conditions that provide ample opportunity for crime in the workplace. In this regard, corporate America shares many of the same struggles faced by personnel security managers attempting to deter espionage and security violations. In many ways, both entities face the difficult task of distinguishing loyal, skilled, and tenured employees from those employees likely to engage in occupational crime (whether it be embezzlement or treason).

Given the difficulty in making such decisions, researchers are increasingly encouraging the use of risk assessment techniques in the evaluation of employees (see Meehl, 1953; Monahan, 1997; and Freudenburg, 1988). The risk assessment approach de-emphasizes dichotomous decision-making about employees (bad employee vs. good employee) and instead encourages the holistic evaluation of the risk factors and protective factors unique to each employee. In so doing, the employer is provided with a well rounded view of the characteristics, experiences, contextual factors, and behaviors that place the employee at elevated risk for occupational deviance. This knowledge can then be used to guide job assignments, supervisory style, and prevention/intervention efforts. This risk-based approach also allows the retention of employees with special or unique competencies who may otherwise "flunk out" of traditional evaluation processes.

This risk evaluation/management approach to assessing employee risk for deviance complements the development of new procedures and policies regarding occupational crime. Researchers agree that speedy apprehension, assertive prosecution, and clear communication regarding perpetrators' cases and outcomes serve as powerful preventive measures. These actions, together with security briefings tailored to the employee's unique risk profile, may serve a potent educational and prevention function. Finally, open discussion of occupational deviance, together with philosophical and structural support of supervisory and co-worker reporting of occupational deviance, may enhance existing surveillance and detection techniques. All in all, research on the aforementioned areas of change is essential to further understand the determinants of occupational deviance and the possible points of intervention and prevention.

Introduction

The latter half of the twentieth century ushered in growing concerns about the scope and significance of white collar crime. This concern was accompanied by increasing scholarly focus on the phenomenology of white collar crime, offender characteristics, and preventive measures. The results of these research efforts have underscored the pervasive and costly nature of white collar crime and have highlighted the difficulties inherent in identifying potential white collar criminals. Given these difficulties, corporations and researchers alike have invested considerable effort in developing personnel selection and management procedures designed to minimize the risk of white collar crime. In many ways, these practices serve as the private sector analogue of governmental personnel security programs. In both cases, the organizations devote time, personnel, and significant resources to practices designed to optimize personnel selection, minimize employee deviance (e.g., espionage, embezzlement), and reduce losses stemming from employee deviance. Research and experience have demonstrated the successes and failures of these practices and has led to the sharing of theory, data, and practical approaches across the public-private divide.

This paper was written to provide a primer on the theoretical and empirical underpinnings of extant research in this area and to bridge the gap between corporate and intelligence community efforts to stem employee deviance. Given the many sociodemographic similarities between white collar criminals and espionage perpetrators, this project devoted special attention to offender characteristics and motives and to other variables believed to moderate the risk of white collar crime involvement.

Defining and Conceptualizing White Collar Crime

The early 1900s witnessed fantastic changes in the power and wealth of American corporations, followed by muckraking exposés of corporate misbehavior and abuses. These stories highlighted the potential for criminality among the power elite and challenged basic assumptions about the characteristics and motivations of crime perpetrators. Edwin Sutherland introduced the notion of white collar crime in an effort to develop a general crime theory that would adequately explain crime in both upper and lower classes. He introduced the concept in his Presidential address to the American Sociological Society in 1939. In so doing, he fundamentally challenged existing theories that posited poverty, disturbed home life, and abnormal personalities as the root causes of crime (Braithwaite, 1985). In the book that followed this address, Sutherland defined white collar crime as "crime committed by a person of respectability and high social status in the course of his occupation" (Sutherland, 1983, p. 7). In addition to offering this definition of the concept, he proposed the theory of differential association as one approach to explaining all criminal behavior, regardless of social class or crime type (Poveda, 1994).

Since Sutherland's introduction of the concept of white collar crime, scholars and practitioners have engaged in considerable debate regarding the proper and inclusive definition of the concept. The over-inclusiveness of the term "white collar crime" has been highlighted as the Achilles heel of research attempting to describe the motives and perpetrators of such crime (see, for example, Braithwaite, 1985). In an effort to enhance the accuracy of explanatory models and criminal profiles, some scholars have argued for the partitioning of white collar crime into more specific domains. This discussion has yielded a variety of typologies and organizational schemes for the understanding and study of white collar crime. Current definitions reflect scholarly efforts to address criticisms regarding the over-inclusiveness of the construct. The sheer number of definitions highlights the controversy in the field as well as the theoretical schism between those who base their definitions on offender versus offense-based criteria (Benson and Moore, 1992).

One popular approach to defining white collar crime categorizes such crime according to legal and/or statutory definitions and ignores status-based differentiations. This approach is more useful for investigative purposes but offers

little to advance understanding of the behavior (Poveda, 1994). According to the *legalistic typology*, the following offenses qualify as forms of white collar crime: antitrust violation, counterfeiting (currency, securities), embezzlement (bank, savings and loan, union funds), forgery, fraud (bank, bankruptcy, credit card, computer/wire, equity skimming, IRS, pension, postal, and securities), interstate transportation of stolen motor vehicles, misuse of public funds, money laundering, political bribery, racketeer influence in corrupt organizations (Collins, 1993). In contrast, *individualistic typologies* focus on the personality characteristics of the perpetrator to better understand the nature of the crime. These typologies have been found most useful for correctional/treatment purposes but of little help to the advancement of sociological explanations of criminal behavior.

Given the shortcomings of these explanations, scholars have articulated their own definitions and typologies better suited to the execution of specific and valid research. Edelhertz (1970) defined white collar crime as "an illegal act or series of illegal acts committed by non-physical means and by concealment or guile, to obtain money or property, to avoid the payment or loss of money or property, or to obtain business or personal advantage" (as cited in Poveda, 1994). He went on to develop a typology to assist in the prevention and deterrence of white collar crime that included the following four categories: personal crimes, abuses of trust, business crimes, and con games. These categories recognized the importance of the interaction of variables of offender motivation and context of offense.

Marshall Clinard and Richard Quinney (1973) offered a simplified typology consisting of two categories of occupational crime and corporate crime, with occupational crime similar to abuse of trust and corporate crime resembling business crime. More specifically, the authors explicated occupational crime as consisting of "offenses committed by individuals for themselves in the course of their occupations and the offenses of employees against their employers" (as cited in Poveda, 1994). In contrast, corporate crime was defined as "the offenses committed by corporate officials for the corporation and the offenses of the corporation itself" (as cited in Poveda). This typology excluded con games and personal crimes and emerged as an influential and widely accepted partitioning of the broader white collar crime construct.

James Coleman (1989) expanded on Sutherland's seminal work by defining white collar crime as "a violation of the law committed by a person or group of persons in the course of an otherwise respected and legitimate occupation or financial activity" (p. 5). This definition broadened Sutherland's definition to include individuals of all social classes and financial crimes (e.g., tax evasion) as

well as both civil and criminal violations. Coleman's typology dichotomized white collar crime into organizational and occupational crime and emphasized the difference between individual and corporate/collective unit perpetrators. According to his typology, organizational crime includes fraud (e.g., false advertising), tax evasion, unfair competition practices, price fixing/gouging, unsafe production, and bribery and corruption, among others.

In contrast, Coleman's notion of occupational crime includes 1) crimes against employers such as employee theft of goods, trade secrets, or time (which he estimated added 2 percent to the price of all retail goods); embezzlement (abuse of position of trust to acquire someone else's assets for own personal use); computer crime; acceptance of corporate bribes; 2) crimes against the public (e.g., short-changing by sales clerks; unrealistic claims by salespeople; fraudulent statements by stockbrokers; unnecessary surgery by doctors); and 3) crimes against the government (e.g., election fraud, tax evasion, espionage, bribery, conflict of interest, and corruption/"power for sale").

While Coleman's definition and typology were designed to include perpetrators of all social strata, Simon and Eitzen (1990) focused solely on criminal acts of the upper crust in developing their notion of elite deviance. Acts of elite deviance 1) are committed by persons from the uppermost classes of society; 2) violate criminal statutes, administrative/civil laws, and/or moral/ethical standards through commission or omission; 3) are committed by the elites for personal gain or by underlings for the purpose of advancing business interests/success; 4) are committed with relatively little risk to the elites (and minor, if any, punishment upon detection of acts); 5) endanger health, safety, and well-being of general public; and 6) are successfully concealed for years in keeping with organization goals of power and profitability. As such, *elite deviance* is focused exclusively on crimes of the upper-middle and upper class leaders of corporate, political, and military establishments (i.e., the power elite).

Of all of these typologies, Coleman's notion of occupational crime has the most practical relevance to the practice of personnel security. As such, this review will focus only on the segment of illegal acts subsumed under the category of occupational crime. This approach necessarily excludes all those acts of omission and commission commonly referred to as corporate/organizational crime and instead focuses on acts perpetrated by individuals for their own personal gain in the course of their occupation. According to this conceptualization, espionage and other security violations resulting in personal gain can be labeled occupational crime. This subset of acts and perpetrators represents the most significant

challenge to personnel management and security across public and private sectors and thus is the most relevant to personnel security research.

Explanatory Theories of White Collar Crime

The debate over the definition of white collar crime has been accompanied by an explosion of explanatory theories of this unique form of deviance. While most of these theories are firmly rooted in the sociological approach to the study of crime, their proponents continue hotly to debate issues of definitional accuracy and generalizability. Given the large body of theoretical literature that exists in this field, the following section highlights the most prominent contemporary theories of white collar crime.

SOCIAL LEARNING THEORY

Sutherland developed his *theory of differential association* in an effort to explain crime across the social strata. This theory proposes that crime is a behavior learned in intimate personal groups and is a function of contact with criminal and non-criminal patterns of behavior. Further, this theory suggests that individuals will acquire the behaviors/cultural patterns that surround them unless they are exposed to alternative or conflicting behavior. In that case, criminal behavior will emerge only if/when criminal associations exceed non-criminal ones. Finally, criminal behavior is viewed as a function of frequency, duration, priority, and intensity of negative associations (Poveda, 1994). Thus, intelligence community employees who work alongside peers engaged in employee theft (including time and attendance theft), security violations, or treason may view the behavior as an acceptable option with limited risk of detection or punishment.

In order to account for group, community, and national differences in crime, Sutherland included concepts of culture conflict and social disorganization. That is, Sutherland suggested that communities marked by greater social disorganization experience higher crime rates, with social disorganization taking the form of "anomie" (sense of normlessness or uncertainty about right/wrong) or "culture conflict," where competing norms dictate different behaviors in the same situation (Poveda; Akers, 2000).

ANOMIE/STRAIN THEORY

Criticism of Sutherland's theory led scholars to apply alternative criminological theories to the explanation of white collar crime. Although *strain theory* was formulated to explain lower class crime and urban gang delinquency, this theory was applied subsequently to white collar crime. In its original form, strain was viewed as the result of the unequal distribution of means to achieve success. This theory proposes that strain (i.e., limited access to legitimate means of advancement) fosters crime as an alternate path to survival, if not wealth. In its application to white collar crime, this theory suggests that the competitive marketplace creates a similar kind of strain, which in turn leads individuals to engage in questionable behavior in the pursuit of profits, market share, acquisition of desired information, and/or individual advancement (Poveda, 1994). Within the intelligence community, strain theory may explain the behaviors of employees who turn to espionage to compensate for their lack of occupational advancement or personal satisfaction on the job (e.g., Robert Hanssen). For these individuals, espionage may represent an alternate path to the financial advancement and appreciation (from their handlers/foreign contacts) that had previously been missing in their lives.

SOCIAL BONDING AND CONTROL THEORY

While strain theory emphasizes the role of context in fostering criminality, *neutralization theory* focuses on the role of rationalization in attenuating the constraints of conventional mores (Akers, 2000). Neutralization is included under the heading of social bonding and control theory due to the role of neutralizations in attenuating social control and social mores. This theory posits that deviance results when individuals can rationalize their actions and avoid crises of conscience about their behavior. Rationalization or justification is seen as the means by which individuals "neutralize" their commitment to conventional values and permit themselves to engage in questionable behavior without seeing themselves as criminal or deviant (Poveda, 1994; Duffield and Grabosky, 2001). According to this theory, neutralization occurs prior to the commission of the act in question and in fact serves as part of the motivation for the act (Coleman, 1989). For example, employee theft may be motivated and neutralized by the belief that occasional workplace "theft" is just compensation for a meager salary and benefits package. Neutralization theory helps to understand the individual and situational causes of

crime, as neutralization allows for commission of an offense in the face of contradictory normative expectations (Benson, 1985).

Criminological research has revealed several potent neutralizations, including the belief that the action was not criminal because it 1) did not hurt/damage the victim, 2) represented borrowing, with the intent to return/repay the debt, 3) was the result of unjust government interference (e.g., in the form of regulatory standards/laws), 4) was necessary for survival within a competitive economy, 5) was common practice, or 6) resulted in gains to which the employee was entitled such as fringe benefits of job or compensatory income (Benson, 1985; Cressey, 1953; Coleman, 1989). Project SLAMMER and other personnel security research efforts have documented the important role that neutralizations play in the actions of convicted spies. The Project SLAMMER Behavioral Science Team characterized neutralization as a form of self-deception that allowed the spies to "rewrite reality" and preserve their positive self-image. Commonly cited neutralizations in the Project SLAMMER research included the belief that the action would not harm anyone, that it was an isolated occurrence, or that it was essential for avoiding other unwanted outcomes.

While neutralization theory uncovers cognitive risk factors for criminal involvement, *control theory* asserts the importance of interpersonal bonds in buffering individuals against criminal involvement. More specifically, this theory posits that crime is a human drive that will emerge unless internal drives are curbed/channeled by external social forces. Conformity to prevailing mores is maintained by bonds to society, family, peers, church, school, and neighborhood. As these bonds weaken, the risk of involvement in criminal behavior increases (Poveda, 1994). Within the Intelligence Community, this explanatory theory might be especially salient in cases where the employee is alienated or isolated from pro-social contacts due to personal experiences or job requirements.

CULTURAL/SUBCULTURAL/ORGANIZATIONAL THEORIES

Cultural and subcultural theory integrates Sutherland's theory with neutralization theory in examining the role of context in enabling criminal behavior. According to this theory, subcultures are formed to provide an enduring and collective release from the moral bind of the conventional culture and its inherent expectations and mores. In essence, the subculture "neutralizes the moral grip" of the dominant culture (Poveda, 1994). Cohen (1955) has suggested that individuals with "similar problems of adjustment" coalesce into subcultures, which in turn provide a

collective solution to common problems facing the individuals. This theory has been applied to police corruption by James Coleman and to corporate climates by Clinard and Yaeger. It has limited appeal to the study of most espionage perpetrators, with the exception of the Conrad and Walker spy rings. In these cases, the leaders of the spy rings created a subculture in which spying was a permissible, almost businesslike, behavior. John Walker was particularly adept at creating a family subculture that redefined espionage as an acceptable route to paternal approval (for his son) and financial gain (for his brother). Each of these spy rings resulted in significant security losses over an extended period of time, due in large part to the collaborators' loyalty to the subcultural leaders and the "rules" established by these leaders (e.g., silence about the activity, complete compliance with requests for materials).

Coleman (1989) and others have contended that most corporate/ organizational atmospheres contribute to the generation of neutralizations in that their core values provide fertile ground for denial of responsibility and justification of illegal and immoral behavior. For instance, the structural makeup of corporations encourages diffusion and denial of responsibility, while their emphasis on profit, growth, and free enterprise fosters behavior that achieves these goals at almost any cost. The impact of this ethos is further compounded by the overarching societal values of individual striving, competition, self-advancement, and independence (Benson, 1985). Together, these expectations and values provide ample opportunity for justification and decriminalization of deviant and/or criminal behavior.

Benson (1985) explored the accounts offered by a group of white collar offenders to clarify the process through which white collar criminals deny their criminality and retain a positive self-image. These accounts revealed pervasive themes and beliefs. Among antitrust violators, common themes included the blameless nature and everyday character of their actions, the ways in which their actions differed from those of street criminals, and the pernicious motives of the prosecutors. In all, the antitrust violators viewed their actions as a "realities of the business world" (Benson, 1985, p. 593) that are essential to survival and profit. The sample of tax violators in this study provided accounts that underscored notions that tax evasion is universal, the complexity of tax law breeds "mistakes," and their behavior lacked criminal intent and thus differed greatly from the actions of common criminals. The accounts offered by the small group of embezzlers revealed a remarkable willingness to take responsibility for their crimes and to regard them as an aberrant response to a difficult life situation. In contrast, the

accounts offered by individuals convicted of fraud and false statements revealed a strong pattern of denial of criminal involvement. These accounts focused on shifting blame to other parties (e.g., colleagues, prosecutors), presenting oneself as a scapegoat, arguing the harmless nature of the actions, and pointing out the personal circumstances that led to involvement in these actions.

INTEGRATIONIST THEORY

While the aforementioned theories of white collar crime emphasize either context or cognition, James Coleman (1989, 2000) has offered an integrative theory of white collar crime that recognizes the need for multiple levels of explanation. Specifically, Coleman's theory has integrated social-psychological and contextual/ structural causes, while examining the role of motive and opportunity at each of these two levels. This theory has focused on the "culture of competition" as the primary source of motivation for white collar crime, but has also acknowledged the role of personality in moderating the extent to which an individual embraces this culture and the risky/criminal behavior associated with it. According to Coleman (1989), the culture of competition is characterized by an intense desire for wealth and success and an overwhelming fear of failure. Corporations within a capitalistic culture encourage the very "values, attitudes, and personality structures conducive to white collar crime" (p. 203) and thus ensure an ample supply of potential violators. In some instances, "occupational positions virtually force their occupants to violate the law in order to succeed" (p. 204). Thus, individuals with hard-driving personalities that value success above all else are likely to seek out competitive corporate environments, embrace the mores of these environments, enjoy career advancement, and possess a greater risk for involvement in criminal activities in the conduct of their work duties.

Coleman has asserted that the fear of failure/loss of status is a primary motivator for white collar criminals and tenders the following three necessary conditions for the commission of white collar crime: motivation, ability to neutralize ethical standards that inhibit criminal behavior, and access to criminal opportunities. Coleman has cited financial motivations as the most potent trigger for white collar crime involvement. He noted that a bulk of white collar crime is motivated by the fear of losing one's status and success and not simply the greedy desire to acquire wealth without work. He also has recognized the role of troubling life experiences in shaping motivation among perpetrators, based upon data regarding the relation between criminal involvement and higher levels of

egocentrism and recklessness. Further, Coleman has proposed that the distribution of opportunities for occupational crime is largely determined by the legal system and its approach to the prosecution of crime (e.g., lax sentencing of white collar crimes sends a message of tolerance, thus increasing perceived opportunity among potential perpetrators). Within this context, differential access to opportunities for criminality explains differences in the nature of white collar crime across gender, race, and type of industry.

Defining the White Collar Criminal

The very nature of white collar crime has complicated the rigorous study of its prevalence, nature, and determinants. Specifically, the incidence of white collar crime is often underreported, due in part to limitations in detection/prosecution and in part to the limited utility of often-used alternative reporting strategies (e.g., victim surveys, self-reports; Braithwaite, 1985). Furthermore, the very diversity of the crimes subsumed under the heading of white collar crime presents a significant challenge to researchers attempting to collect generalizable data about white collar crime and its perpetrators.

Much of the existing research on white collar crime has focused on theory building, modus operandi (i.e., the ways in which individuals and organizations commit white collar crime), or the impact of control agencies (e.g., regulatory agencies) on the occurrence of white collar crime (Braithwaite, 1985). A smaller segment of the extant research has explored perpetrator characteristics, with these studies often examining a small group of unique offenders (e.g., female embezzlers) or relying on self-reports of deviant workplace behavior or occupational crime. The obvious limitations of these approaches, together with limited contemporary research (1990s-present) on perpetrators of occupational crime, have created gaps in understanding the motives and characteristics of occupational crime perpetrators.

SOCIODEMOGRAPHIC CHARACTERISTICS

The Yale White Collar Crime Study (Weisburd et al., 1991) has provided some important sociodemographic information regarding a select group of occupational crime convicts.[1] Weisburd, Chayet, and Waring (1990) found that the vast majority of convicts in this sample was male (85.5 percent), Caucasian (78 percent), middle-aged (average age = 40), employed at the time of the offense (92 percent), and employed in white collar occupations (78 percent). These sociodemographic characteristics mirror those of individuals convicted of espionage over the past three decades. Thirty percent of the total sample served as owners or officers at the time of the offense, while 36 percent were in non-management positions. Forty-three percent of the sample had a history of prior criminal arrests, while 34 percent of the sample had a history of prior convictions (Weisburd et al.).

Weisburd et al. (1991) found that the bulk of white collar offenders studied were middle class males who were typically engaged in careers with moderate levels of status or respectability. This finding clearly challenged myths regarding the central involvement of the social and power elite in the performance of white collar crimes. A corollary myth regarding the need for high status and background was also shaken by this study, as Weisburd et al. documented that status within the organization was far less important than the offender's location in the organizational structure. Thus, offenders in positions with unfettered access to key resources (e.g., data base information) were found to have engaged in the most significant and damaging acts. Here again, recently convicted spies have often been found to operate in mid-level positions characterized by easy access to important resources.

PERSONALITY CHARACTERISTICS

Over the years, researchers have explored the role of personality characteristics in fostering occupational crime and deviance. While initial studies of personality factors attempted to identify personality "types" or "profiles" predictive of occupational crime involvement, these efforts met with little conclusive success. In response, researchers have begun to study the ways in which certain personality characteristics interact with situational variables to result in occupational crime. Thus, personality characteristics shape behavior by moderating decision-making in the face of unique contextual influences (e.g., work environment, interpersonal/family environment, social environment) (Terpstra, Rozell, and Robinson, 1993).

Given this framework, researchers have posited that the following variables are associated with occupational crime involvement: interpersonal competitiveness, narcissism, impulsivity, external locus of control, high need for achievement/praise, low self-esteem, low levels of religious conviction (see for example, Hogan and Hogan, 1997; Terpstra et al., 1993). To date, empirical support has emerged for only a small subset of the aforementioned variables. In their study of insider trading and ethical decision-making, Terpstra et al. documented that individuals with high levels of competitiveness and external locus of control were more likely to engage in unethical decision-making. These researchers suggested that the competitive drive to win at all costs likely disinhibits ethical decision-making, and that an external locus of control renders one more vulnerable to the negative impact of situational/contextual pressures.

The Hogans' (1997) study of mid-level managers attempted to identify the personality characteristics associated with workplace betrayal. These authors advanced the theory of the hollow core, which characterizes betrayers as outwardly self-confident and charming and inwardly self-doubting and rash. Their data reveal that betrayers hide their competitive and self-promoting nature behind a charming and persuasive veneer and selfishly view others as tools for satisfying their personal and material needs (Hogan and Hogan). This pattern of behavior is perpetuated by an egocentric lack of insight into their own selfish and exploitative behavior and by the constant quest to overcome self-doubts at any cost. These qualities severely hampered the managerial effectiveness of the subjects in the Hogans' study and emerged as important risk factors for involvement in betrayal and other forms of occupational deviance.

Collins (1993) conducted a study of incarcerated white collar criminals and a control group of upper-level managers in an attempt to identify the psychological factors related to "counterproductive job performance" (Collins, p. 2). For the purposes of this study, Collins defined white collar crime as "non-violent crime for financial gain committed by means of deception by persons whose occupational status is entrepreneurial, professional, or semi-professional…" (Collins, p. 6). This study attempted to quantify both high (e.g., conscientiousness) and low (e.g., thoroughness) order traits and their predictive efficacy within the study samples. Specifically, the author administered the California Psychological Inventory and examined group differences on the four higher-order profile factors (i.e., interpersonal orientation, intrapersonal orientation, intellectual ability, cognitive style), three global factors related to personal orientation (i.e., extroversion/ introversion, self-actualization, and competence), and four lifestyle types (defined by interplay of various scales within the test).

Among males, Collins observed significantly lower scores among white collar criminals on scales measuring Responsibility, Socialization, Tolerance (the triad found to predict antisocial behavior in other research), communality, and achievement via independence. Collins also found that male criminals differed from male non-criminals on scale scores tapping constructs of self-control, well-being, and psychological mindedness, suggesting that male white collar criminals are lacking in self-discipline, prone to complaining, and have a preference for concrete and unambiguous tasks. Among females, white collar criminals scored markedly lower on scales tapping responsibility, socialization, tolerance, communality, achievement via independence, and flexibility. The largest differences for both genders emerged on the responsibility, socialization, and tolerance scales. Low

scores on these scales suggest that white collar criminals are undependable and self-indulgent (RE), rebellious in their attitudes (SO), distrustful or suspicious of others (TO), and likely to view themselves as unique/different (CM). Examination of scales involving cognitive factors revealed that male white collar criminals may bristle when rules constrain their decision-making and/or sense of autonomy. In all, Collins reported large effect size differences between criminals and non-criminals on 9 of 20 primary scales on the CPI among the male subjects and in 6 of 20 scales among women.

Examination of the global factors revealed no differences in interpersonal orientation or intellectual functioning between male groups. The most significant global factor difference emerged on the intrapersonal orientation dimension, where white collar criminals were found to be more impulsive, more likely to make decisions based on intuition and emotions, and more likely to "fly by the seat of their pants." Collins also detected a difference in cognitive style that might reflect their difficulty in relating to others in ambiguous, conceptual, and/or abstract ways. Among the females included in her study, Collins observed significant differences in the areas of interpersonal style and cognitive style. Collins' structure analysis of the CPI revealed a greater tendency for extroversion, involvement in behavior that is inconsistent with their attitudes, and lack of self-fulfillment/competence among male white collar criminals. This finding suggests that male offenders become involved in white collar crime as their lofty goals outpace their practical competencies and skills. While analysis of female responses revealed the same general trend, the differences were not as pronounced.

Type analysis of the test results found male white collar criminals more likely to fall into the gamma or alpha categories, suggesting that male white collar criminals are distinguished by their lower levels of personal integration, fulfillment, and perceived competence. No such type differences emerged among the female group. Together, these findings led Collins (1993) to characterize male and female white collar criminals as "suspicious, rebellious, restless, unconventional, and dissatisfied" (p. 39) individuals who are lacking in self-discipline. She further described white collar criminals as risk-takers who are likely to use and manipulate people to meet their needs, a dynamic exacerbated by their competitive and egotistical nature. This nature, together with their fear of failure and rejection, may lead white collar criminals to be perceived as opinionated and action-oriented. While Collins listed these micro-level personality factors, she identified the themes of conformance and self-fulfillment as the over-arching continua that differentiate

criminal and non-criminal individuals (i.e., criminality is associated with lower levels of self-fulfillment, competence, and/or conformity with social mores).

While considerable effort has been expended on the examination of personal determinants of occupational crime involvement, the above section highlights the complexity of the resulting findings. Taken together, these studies have identified a range of important personality features that increase one's risk for criminality but have failed in identifying a personality "profile" that distinguishes occupational offenders from other criminals and/or honest employees. While the intelligence community has experienced similar difficulties in personality profiling of convicted spies, reports on personality characteristics from Project SLAMMER and other sources (e.g., Heuer, 1995) have highlighted a pattern of risky personality characteristics similar to those discussed above. Together, both bodies of work have revealed that white collar criminals and convicted spies share the following personality traits: risk-seeking, impulsivity, unconformity/rejection of social mores, external locus of control, and/or low levels of self-fulfillment.

SITUATIONAL AND CONTEXTUAL INFLUENCES

Given the limited explanatory value of predictive models based only on sociodemographic and personality variables, researchers and theorists have recognized the importance of situational or contextual variables in shaping occupational crime and deviance. The resulting scholarship in this area has identified the following classes of contextual influences: 1) government/legal environment (e.g., regulatory standards, aggressiveness of prosecutorial practices), 2) social/cultural environment (e.g., prevailing cultural mores and prohibitions), 3) professional environment (e.g., ethical and behavioral expectations), 4) work environment (e.g., level of supervision, work group norms, and 5) interpersonal environment (e.g., peer influences, family relationships) (Terpstra et al., 1993; Kurke, 1991). These variables influence individual behavior by way of a layered cascade, best illustrated by Figure 1 on the following page.

As Figure 1 illustrates, every context in which the individual functions exerts its own unique influence on the individual's values, emotions, thoughts, and behaviors. In addition, certain characteristics of these contexts may increase the opportunities for criminal involvement (e.g., minimal supervision, lax security practices). The impact of these contextual influences is further complicated by the

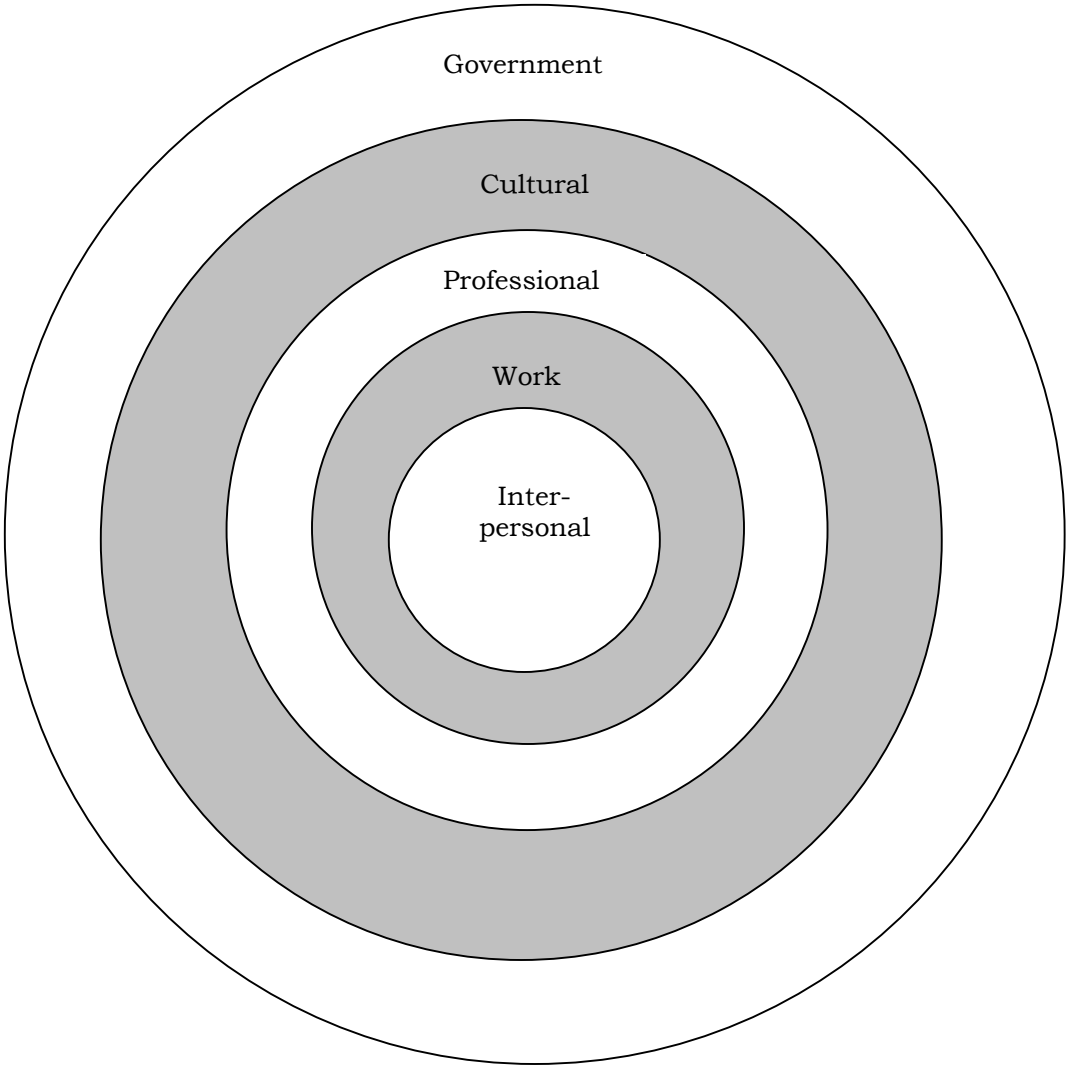

Figure 1: Diagram of contextual Influences Relevant to Occupational Crime

overlapping and interactive nature of the many contexts relevant to daily functioning. According to this model, occupational crime results from the overriding influence of negative contextual factors. Within this model, it is believed that individuals with external loci of control are more susceptible to contextual cues and pressures than are individuals with internal loci of control (Terpstra et al., 1993).

The contribution of workplace variables to occupational crime has received increasing attention of late, with researchers attending to such factors as supervisory style, workplace norms and expectations, pay equity, promotion/personal development potential, job characteristics, and physical plant characteristics (e.g., office layout, security systems). This research has been shaped by social-psychological theories regarding group behavior and the social determinants of illegal behavior.

Theoretical emphasis on group and organizational dynamics has led to the study of workplace mores and their impact on individual behavior. Researchers have agreed that the competitive and demanding nature of the contemporary work place exerts pressures that greatly impact the behavior of employees. Recent studies have polled employees about the effect of this pressure on their behavior and found that 48 percent of workers admitted to unethical or illegal workplace behavior[1] in the calendar year of interest ("Unethical workers", 1999). The polled employees attributed these illegal acts to work pressure resulting from factors such as job insecurity, long work hours, performance quotas, and the struggle to balance work and family life. Across industries, manufacturing and health care workers reported the most workplace pressure to act unethically/illegally. Workplace pressure was also documented to be higher among mid-level managers, employees of large companies, and workers with a high school diploma or less ("Unethical workers").

Subsequent work by Robinson and O'Leary-Kelly (1998) and others has explored the effect of work group climate on antisocial behavior among employees. In so doing, these researchers have focused on the most proximal contextual/social influences on individual behavior. Robinson and O'Leary-Kelly found that antisocial work group behavior was predictive of individual antisocial behavior at work and that work groups with stronger antisocial climates more greatly influenced individual behavior. Furthermore, the potency of the antisocial group effects was positively correlated with individual tenure in the group and level of task interdependence. Taken together, these findings suggest that antisocial work group norms exert much greater influence among closely-knit and well-established work groups.

While a growing body of research has explored deviant work groups, other researchers have examined the role of certain workplace practices in fostering

[1] This survey polled 1,324 workers, managers and executives about their commission of 25 illegal or unethical behaviors, such as expense account fraud, paying or accepting kickbacks, forging signatures, ignoring environmental law violations and cutting corners on quality control ("Unethical workers", 1999).

occupational crime. Hollinger (personal communication, 2002) has noted that employee theft results in the loss of company property, coworker/personal property, and property of "uncertain ownership" (or "pre-trash"). This third category is presumed to be most at risk of theft, as property of uncertain ownership is often viewed as "pre-trash" property of little value to the employer (e.g., damaged retail goods, government documents bagged for shredding). Thus, employees can easily rationalize claiming it as their own without paying for it or seeking appropriate permissions. The vulnerability of different forms of property to employee theft is determined largely by the level of guardianship exercised by the employer/owner. Low levels of guardianship (e.g., a wallet left in an unlocked employee locker, unfettered access to computer banking systems, lax security procedures, and lax prosecutorial approaches to employee theft) promote theft by decreasing the perceived risk of the theft behavior and/or the possibility of detection. In contrast, high levels of guardianship are thought to enhance accountability and deterrence.

MOTIVES AND MOTIVATIONS

Cressey's (1953) study of convicted embezzlers remains one of the most in-depth and informative examinations of occupational crime perpetrators. Based on his interviews with incarcerated embezzlers, Cressey characterized embezzlement as the solution to the "non-shareable financial problems" held by individuals with the requisite technical knowledge, access to funds, and capacity to rationalize their actions. Cressey documented the specific rationalizations used by embezzlers, with the most common being the belief that they were just borrowing the money with the intent to return it and thus were not hurting their victim. He further articulated the notion that these rationalizations are present in the organizational culture or subcultures, and that they are simply re-worked by the individual to suit his/her situation and justify his/her actions. Cressey recognized the role of non-shareable problems in shaping more specific and unique rationalizations; he noted that the employee's reference subculture can also act to buffer him/her from the disapproval and social control of peers who do not share these rationalizations.

Cressey's emphasis on the non-shareable problem as the primary motivator for embezzlement has received mixed empirical support since its inception, as subsequent studies of male and female embezzlers (by Nettler and Zietz, respectively) have failed to document the existence of non-shareable problems *prior* to commission of the act. In contrast, Daly's (1989) work on gender differences in embezzlement documented the needs of family members as justifications among

female embezzlers and business needs as justifications among male embezzlers. Other, more recent work has highlighted financial strain or financial self-interest as a central motivation for occupational criminals. Duffield and Grabosky (2001) emphasized the subjective nature of financial strain and the role of ego, social comparison, and fear of loss in magnifying perceived financial strain among offenders. In so doing, they echoed Weisburd et al.'s (1991) contention that "fear of falling" (i.e., losing status, assets, and/or privilege) is a more compelling motive than greed alone.

Pherson (2001) documented the relevance of real and perceived financial need in the cases of recently convicted spies. Her review of extant research on the motives of convicted spies established that "far more spies claim to be motivated by money than any other factor" (p. 2) and thus identified another strong parallel among white collar and espionage perpetrators. Given the central role of financial motives in espionage cases, Pherson concluded that financial overextension, broken financial agreements (e.g., defaulted loans), and unexplained affluence all signal increased risk for involvement in security violations/espionage.

While Cressey, Daly, and others have explored financial motives for embezzlement, Bintliff (1993) and Coleman (e.g., see Coleman and Ramos, 1998) have proposed several additional motives for theft and occupational crime among corporate employees. While Bintliff acknowledged the role of rationalization/ neutralization in creating a non-criminal self-image, he also looked to contextual risk factors for occupational crimes. Specifically, he cited the role of the large and impersonal corporate setting in eroding loyalty and leading individuals to view crime as victimless and harmless acts committed against an abstract entity. He cites as well the role of job dissatisfaction and workplace inequity in leading the individual to view profits of theft as much-deserved informal compensation or fringe benefits of the job. Coleman has complemented Bintliff's work by emphasizing the pernicious effect of the capitalistic "culture of competition." According to Coleman, this culture rewards ruthless ambition, heightens fears of failure/falling, rationalizes unethical acts as victimless, and thus encourages occupational crime.

Union-management conflict may also motivate occupational crime, as union members' resentments against the company may provide justification for their deviant actions. Similarly, non-union employees may view themselves as being deprived of benefits being afforded to union workers and may view deviant workplace activities as compensation for injustice. Bintliff (1993) also noted the role of boredom or frustration on the job and/or dispositional desire for excitement in increasing one's risk for engaging in deviant workplace acts. Corporations also

may encourage crime unwittingly by sending subtle messages that losses from employee theft are expected, unstoppable, and unlikely to be aggressively prosecuted.

Other authors have pointed to more personal motives, including a narcissistic sense of superiority, a desire for mastery and control over people and situations, and a callous enjoyment of "beating the system" or "getting over" on the system or an individual victim (Duffield and Grabosky, 2001). The social psychological study of motives among employee theft perpetrators has identified four major types of motives distinguished by their intended target and the nature of the act (i.e., prosocial vs. antisocial; Greenberg, 1997). These motives include supporting, thwarting, evening the score, and approval-seeking and are best remembered by the acronym STEAL.

The following table illustrates the ways in which these motives differ (Greenberg, 1997, p. 89):

	Target	
	Employer	Coworkers
Prosocial Intention	Approval (e.g., adherence to supervisory norms condoning theft)	Support (e.g., adherence to workgroup norms condoning theft)
Antisocial Intention	Even the Score (e.g., desire to strike back at employer)	Thwart (e.g., violating workgroup norms condoning theft)

Table 1: Prosocial and Antisocial Intention

Greenberg's delineation of these motives draws upon current knowledge regarding the social determinants of employee crime and provides a new perspective for organizations battling occupational crime. In turn, this perspective highlights alternative points of intervention above and beyond the traditional focus on security/control techniques and personal determinants of crime.

Hollinger and others have promoted a geometric model of employee theft that integrates research on motivation, opportunity, and contextual factors. That model is illustrated below:

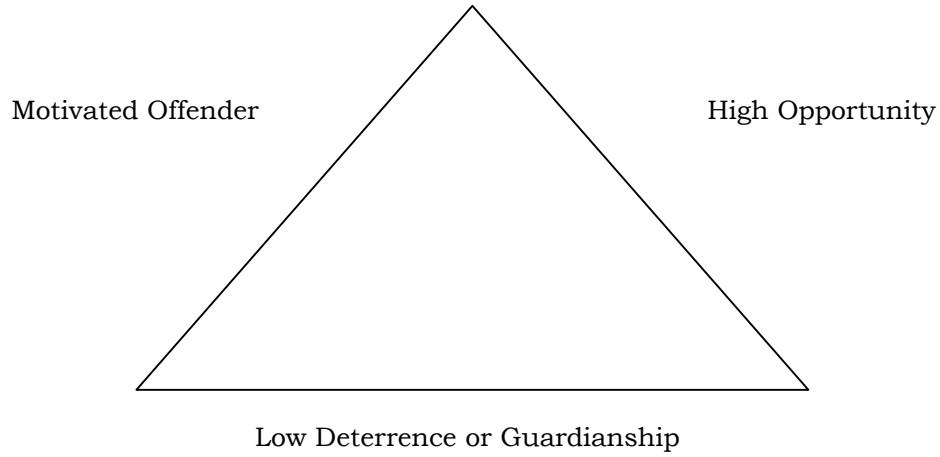

Figure 2: Geometric Representation of Variables Underlying Occupational Crime

As Figure 2 illustrates, employee theft is a multiply determined behavior that results from the confluence of certain critical variables. The absence of any of the three determining conditions (motivation, opportunity, poor guardianship) thus eliminates theft as the behavioral outcome.

GENDER DIFFERENCES IN OCCUPATIONAL CRIME

Several researchers have directly examined gender differences in the nature of and motivations for white collar crime. The resulting data have challenged some central myths regarding female involvement in crime, most notably that women are much less likely to perpetrate crime than men. While these studies have found that women continue to be at significantly less risk for criminal involvement than men, arrest data suggest that women constitute 35-43 percent of arrests for embezzlement and fraud. This figure clearly surpasses female arrest rates for any of the common/street crimes aside from vice/prostitution. Zietz's (1981) work with female inmates in California was among the first to examine the rationalizations offered by female embezzlers. She found that women were much more likely to point to the needs of their significant others (e.g., husband, children) as justification for their actions than to the financially-based rationalizations verbalized by male embezzlers and documented by Cressey.

Daly's (1989) comparison of male and female white collar perpetrators complemented and expanded upon Zietz's work. Daly found the female offenders to be younger, less educated, lower income, and employed in lower status jobs than their male counterparts. In addition, she reported that the females' crimes resulted in smaller losses and were less complex, shorter in duration, and more likely to be carried out independently. Furthermore, women were significantly under-represented in antitrust or SEC violations, the two most common corporate crime violations. Given these findings, researchers have proposed that differences in opportunity and moral reasoning result in gender disparities in the motivations for and scope of white collar offending (Coleman, 1989).

CRIMINAL CAREERS OF WHITE COLLAR CRIMINALS

Scholarship and crime data have established that the number of white collar offenders in the community far exceeds the number of common/street criminals (Braithwaite, 1985) and that the monetary losses resulting from occupational crime far exceed those of other common offenses such as larceny. For example, the 2001 National Retail Security Survey results suggested that employee theft costs in the retail sector surpass fifteen billion dollars per year (Hollinger, 2001). Recognition of the impact of occupational crime has led to increased study of the occupational crime perpetrators' criminal careers and patterns of offending.

Given mounting evidence that occupational criminals possess many characteristics shared by "common" or street criminals, researchers have begun to examine the similarities and differences between these two groups of offenders. Hirschi and Gottfredson (1990) asserted from a theoretical framework that occupational criminals do not differ from common criminals, as both engage in criminal acts because of deficits in self-control, a desire for self-gratification, certainty about outcome, and an opportunity to commit offenses. Unfortunately, the authors presented no data to support their assertions and instead loosely reviewed existing research that supports their paradigm.

The Yale White Collar Crime Project emerged as a pioneering effort to generate valid phenomenological data regarding "crime in the suites" and challenge prevailing myths regarding these crimes and their perpetrators. Weisburd, Wheeler, Waring and Bode (1991) examined pre-sentence investigation reports compiled by federal probation officers to better understand the nature of the offenses and the ways in which they differed from common crimes ("crimes in the streets").

Weisburd et al. (1990) explored the criminal histories of 1,090 individuals convicted of white collar crimes (see footnote 1 for list of crimes selected). Within this sample, 43 percent had a history of prior arrests and 34 percent had a history of prior convictions, with 28 percent having two or more prior arrests and 12 percent of the total sample having four or more prior arrests. Twenty-one percent of the sample possessed prior felony convictions, while 15 percent had been previously incarcerated (Weisburd et al). The average age of onset of offending collar criminals in Wheeer's (1988) sample was found to be 35. Closer examination of age of onset of offending among a subset of recidivistic/chronic white collar offenders revealed a considerably earlier age of onset (mean age of onset = 24).

Examination of criminal histories across occupational offense category revealed that antitrust violators were least likely to have criminal histories and most likely to resemble traditional notions of the white collar criminal. In contrast, a history of repeat offending was more often noted in credit fraud, false claims, and mail fraud violators (4 in 10 had two or more prior arrests), followed by tax offenders, embezzlers, and bribery offenders. Among a select sub-group of high status offenders who held elite positions or owned significant assets, 28 percent had prior arrests, 22 percent had prior convictions, and 6 percent were previously incarcerated (Weisburd et al., 1990).

This startling information regarding the recidivism of white collar offenders was corroborated by Benson and Moore's (1992) comparison of pre-sentence reports on 2,462 convicted white collar criminals and 1,986 convicted "common criminals" (i.e., individuals convicted of narcotics offenses, postal forgery, and bank robbery). Within the group of white collar criminals, individuals convicted of mail fraud were most likely to have had at least one prior arrest (65.9 percent), followed by false claims convicts (49 percent) and income tax evaders (42 percent). Eighteen percent of embezzlers and 23.6 percent of bribery convicts had a history of at least one prior arrest. Together, this data undermined old assumptions that occupational crime is an isolated event committed by upper- class individuals with no history of criminal involvement.

COMPARING WHITE COLLAR CRIMINALS WITH COMMON CRIMINALS

In light of these revelations about white collar criminals, researchers commenced direct comparison of white collar offenders and street offenders to identify areas of overlap and divergence. These efforts have revealed significant differences in victimization patterns and in the overall complexity of white collar versus non-

violent common crime (Wheeler, Weisburd, Waring and Bode, 1988). Specifically, Wheeler et al. found that a far greater proportion of white collar crimes involved one hundred or more victims, victimization of organizations, theft of more than $100,000, national/international scope, and/or crimes lasting more than one year.

Comparison of offender characteristics has been shaped by the *deviance proposition* and the *criminal versatility proposition*. The *deviance proposition* posits that occupational criminals and ordinary offenders share similar deviant characteristics. Examination of pertinent sociodemographic variables has revealed that white collar offenders have higher levels of educational attainment than both common criminals and the general public and higher rates of employment than non-violent common criminals (Wheeler et al., 1988). In a separate study by Benson and Moore (1992), the white collar criminals reported higher grades and better social adjustment in high school and significantly less involvement in illegal drug use (6 percent versus 49 percent) than did common criminals. Specific examination of intra-individual differences between the common criminals and the recidivist white collar criminals (those with at least four prior arrests) demonstrated remarkable convergence with the pattern of deviant behaviors (alcohol use, poor grades, poor social adjustment) reported by common offenders. Thus, the deviance proposition appears to apply only to a subset of highly recidivistic white collar crime perpetrators.

Proponents of the *criminal versatility proposition* contend that white collar offenders exhibit a versatile pattern of criminal offending similar to that of common offenders. Benson and Moore (1992) documented that white collar criminals tend to specialize in white collar offending, and that they are significantly less versatile in their offending patterns than are street/common offenders. White collar criminals were found to have proportionately more prior arrests for white-collar offenses than did common offenders (15 percent versus 4 percent) in the Benson and Moore sample. Analysis did, however, reveal some overlap in patterns of offending, with some white collar criminals engaging in common crime, and vice versa. Weisburd et al. (1990) found that mail fraud offenders and securities violators were most likely to demonstrate criminal specialization (i.e., to have a history of white collar crime offenses), while bribery offenders and bank embezzlers were least likely to evidence criminal specialization. Based on these findings, researchers have proposed that involvement in complex offenses requiring mastery of unique skills (e.g., securities fraud) results in later onset of low-frequency, specialized criminal behavior (Weisburd et al.). In contrast, white collar crimes requiring little specialized skill or knowledge may attract offenders who are criminally involved

earlier in life, with greater frequency of offending, and with greater versatility in their offending.

PERPETRATOR PROFILES/TYPOLOGIES

Greater understanding of the psychosocial characteristics, motives, and patterns of offending unique to white collar criminals has fostered the development of offender profiles and typologies. Wheeler et al. (1988) based their typology of white collar crime on a combination of demographic (i.e., education, assets, social position) and offense (i.e., degree of organization and victimization) characteristics. Their typology forms a continuum, with antitrust and securities fraud offenders at the top, followed by tax and bribery offenders, credit fraud, false claim and mail fraud offenders, and finally bank embezzlers.

Antitrust, Securities Violators	Middle-aged white males, stable employment in white collar jobs, majority are business owners/officers. Antitrust violators tend to be more affluent and less likely to have criminal history than other categories. Offenses are most organized (statewide or wider scope) and involve greatest victimization (number of victims, dollar value).
Tax, Bribery Violators	Overall, this group is steadily employed in white collar positions with decent financial standing; one-third serve as business owners/officers. When compared to antitrust/securities violators, this group is more often unemployed, less educated, and more likely to have criminal history.
False Claim, Mail Fraud	Fewer than half are steadily employed, one quarter is unemployed at time of offense, and half have criminal history. Less likely to have significant financial assets and/or college degrees, younger, more likely to be female or non-white.
Bank Embezzlers	Far younger than other groups, nearly as likely to be female as male, less likely to have significant financial assets. Far less likely than false claim/mail fraud violators to have been unemployed or criminally involved.

Figure 3: Theoretical Continuum of Occupational Offending (Wheeler et al., 1998)

While the above typology differentiates occupational offenders based on sociodemographics and offense characteristics, an alternative typology offered by Wheeler (1992) focuses on motivations for offending. This model proposed four

general categories of motivations, including: 1) greed, 2) fear of falling, 3) ideology, and 4) revenge-seeking. Greedy offenders are risk-seeking and motivated by getting more of what they already have. These offenders relentlessly pursue personal advancement, with each increase in income or assets creating a greater willingness to engage in unethical and/or illegal behavior. Those offenders motivated by the fear of falling or losing what they already have worked so hard to attain evaluate all gains or losses against their current position. This evaluation process tends to magnify losses and minimize gains, thus perpetuating the fearful stance of the offender. For these individuals, the utility of the illegal act is determined by the net balance of gains and losses, and not by their final asset position (Wheeler). Ideologically-driven offenders engage in occupational crime to make a statement about their beliefs and values. This motivation is often seen in tax protesters and embezzlers who see their behavior as an outlet for resistance against and/or moral condemnation of powerful organizations. Finally, revenge-seekers use their unhappiness and anger to justify their criminal actions against corporate or governmental entities. Of the aforementioned categories, fear of falling and greed likely represent the most common motivations for occupational crime.

Based on their examination of occupational crime convicts, Benson and Moore (1992) delineated three paths toward crime involvement: 1) offenders with low levels of self-control seek gratification through impulsive involvement in crime as opportunity arises (yields high rates of offending and versatile pattern of offenses); 2) offenders with high levels of self-control engage in aggressive and calculating deviance to feed their ego/need for power (yields low rates of offending with little versatility); and 3) offenders with a moderate to high level of self-control take advantage of opportunities to offend as personal situation dictates (yields low rates of offending with little versatility). Benson and Moore concluded that white collar criminals have "at least moderate, if not considerable self-control" (p. 266), and that their involvement in crime occurs only when this self-control is overridden or redirected. They further proposed that some complex interaction of motive (greed, fear of failure) and opportunity propels individuals to act criminally, with motives operating differently across social class. Specifically, middle-class offenders are presumed to be driven by their desire for security and fear of failure, while the power elite offenders are driven to deviance by their need for power consolidation/expansion (Benson and Moore).

Bintliff (1993) identified three categories of white collar crime perpetrators based on their motives, decision-making styles, and personality characteristics. According to his typology, perpetrators can be classified as greedy, desperate, or

mindless. Greedy perpetrators take possession of large amounts of corporate assets in a short time in response to their need to support an extravagant life style. The criminal acts then grow in scope and magnitude to satisfy their rapidly escalating needs and subsequently become detectable. Desperate perpetrators ignore the risks involved in their deviant activities because of the pressure created by their immediate and critical needs. Finally, mindless perpetrators demonstrate an impulsive involvement in deviant acts without understanding or appreciating the logical steps that must be taken to avoid detection.

Buffering Factors

While much of the extant research on white collar crime has explored its causes and consequences, scholars have begun to search for the variables that buffer against employee involvement in occupational crime. The search for buffering factors, also called protective factors, has been informed and shaped by prevailing theories of white collar offending. Lasley (1988) applied control theory to corporate settings in an effort to assess the relation between the quality of the employee-corporation bond/attachment and white collar offending. This study provided empirical support for the following conclusions:

1. "Executives with strong corporate attachments are less frequent white collar offenders than those with weak corporate attachments …
2. Executives with strong commitments to corporate lines of action are less frequent white collar offenders than those with weak commitments …
3. Executives with strong involvements in corporate activities are less frequent white collar offenders than those with weak involvements, and …
4. Executives with a strong belief in the rules of the corporation are less frequent white collar offenders than those with a weak belief …" (Lasley, pp. 358-360).

These findings suggest that attachments to the organization play a critical role in fostering conventional, non-criminal behavior through the inculcation of normative values and the elimination of isolation. Together, these dynamics create a "psychological presence of managers … and associates" that deters criminal behavior in the absence of direct supervision and the presence of access/opportunity (Lasley, 1988, p. 359). According to this research, these constraining forces are further strengthened by the presence of high levels of commitment to organizational success, personal investment in that success, and time-consuming involvement in one's work. All in all, Lasley concluded that white collar crime may be effectively deterred through strong employer-employee bonds that generate personal commitment to "beliefs that prohibit illegal behavior" (Lasley, p. 360). Given these findings, the following section offers a review of current research regarding organizational commitment and loyalty.

LOYALTY IN THE WORKPLACE

Organizational management researchers have struggled with the task of defining and operationalizing loyalty in their efforts to understand the role loyalty plays in enhancing employee functioning and buffering against deviant employee behavior. This complex construct has been alternately defined as an attitude with no behavioral component, an attitude with complementary behavioral manifestations, a set of behaviors, and/or an emotional attachment (Minton, 1992). Loyalty has been operationalized as "acquiescence, commitment, compliance, choice, attachment, identification, involvement, fidelity, trust, allegiance, and citizenship (to name only a few)" (Minton, p. 279).

Hirschman's (1970) seminal work in this field defined loyalty as a feeling of attachment to an organization that influences one's decision to exit (i.e., leave organization) or voice (i.e., share concerns/complaints) during times of dissatisfaction or decline. According to this model, loyalty can be 1) unconscious, 2) conscious/passive (e.g., quietly persevering), or 3) conscious/active (e.g., speaking out for change or reform) (Minton, 1992). Additionally, loyalty (especially in its active form) is presumed to be positively correlated with organizational commitment but wholly independent of overall levels of (dis)satisfaction. Application of this model suggests that a loyal employee will choose to exercise voice (active or passive) rather than exit during times of organizational difficulty or personal dissatisfaction.

Research based on Hirschman's model has found that loyalty is positively related to voice and patience on the job and negatively related to exit and neglect (Leck and Saunders, 1992). Closer analysis of this research finds that satisfied employees respond to problems with voice, while dissatisfied employees quietly choose exit, neglect, or patience as a response. Withey and Cooper (1992) provided valuable information on the factors that propel employees toward passive versus active loyalties. They characterized the passive loyalist as "dissatisfied, uncommitted, having a relatively external locus of control, and facing high costs of change that seemed unlikely" (p. 235). In contrast, active loyalty more often emerged among employees with high levels of commitment and satisfaction, as well as optimism about the possibility of change.

Withey and Cooper (1992) were also able to identify a set of actions that statistically differentiated individuals with high and low levels of loyalty. Actions that were associated with high levels of loyalty included a willingness to:

> "1) give something extra when the organization needed it, 2) treat company information in strictest confidence, 3) work to resolve problems within the organization, 4) do things above and beyond the call of work without being asked, 5) work hard to get the job done, protect the organization against fraud or theft, work late to get the job done, 6) actively promote the organization's business in public, 7) work to improve products and services, and 8) act respectfully toward customers and clients." (p. 239)

Together, the extant research suggests that loyalty promotes positive and constructive workplace behaviors and deters destructive behaviors in the face of dissatisfaction. Various authors have speculated that loyalty is fostered by work environments that provide employees with a sense of ownership, leadership, and respect (Sheppard, 1999); diverse, changeable, and meaningful tasks (Benini, 2000); and fair and equitable compensation and recognition programs (Smith, 2000). A recent study of employee loyalty in America identified seventeen factors related to workforce loyalty. According to this study, the top five factors in order of importance are: management recognition of the need to balance work and family, the organizational direction/momentum, opportunities for personal growth, ability to change the way things are done, and satisfaction from everyday work (*Business Wire*, 1998).

ORGANIZATIONAL COMMITMENT

Attempts to better understand the sources of employee loyalty have given rise to a body of literature on organizational commitment. This issue has come to the forefront in recent years as workforce trends have demonstrated high levels of turnover among young workers, customer service employees, high-tech workers, and employees at large companies (*Business Wire,* 1998). Organization commitment can assume the form of attitudinal commitment and calculative commitment. Attitudinal commitment is the most often studied and is defined as one's identification with an organization as manifested by internalization of the organization's goals and values, willingness to exert effort in pursuit of organizational goals, and a strong desire to maintain membership in the organization (Mathieu and Zajac, 1990). In contrast, calculative commitment is based on an exchange view in which "individuals become bound to an organization because they have side bets, or sunk costs (e.g., a pension plan), invested in the

organization and cannot "afford" to separate themselves from it" (Mathieu and Zajac, p. 172).

A meta-analysis of organization commitment research conducted by Mathieu and Zajac (1990) focused on the antecedents, correlates, and consequences of commitment. This review included a variety of antecedents subsumed under the general categories of personal characteristics, role states, job characteristics, group/leader relations, and organizational characteristics. Correlate factors were grouped under the headings of motivation and job satisfaction, while consequences were lumped under the job performance category. Appendix A presents the results of this meta-analysis in detail, with focus on antecedents and correlates of organizational commitment. As this table illustrates, extant research has uncovered a range of antecedent variables that affect organizational commitment. The strongest relations were found between self-perceived competence, job scope, and leader communication, suggesting that employees are likely to be more committed in situations where they perceive that their job is complex/enriched, that the organization provides for their growth needs, and that their supervisor engages in accurate and timely communication (Mathieu and Zajac).

In Mathieu and Zajac's review (1990), the variables of role ambiguity, role conflict, and role overload were all moderately negatively correlated with organizational commitment. Thus, as employees experience greater levels of role conflict (e.g., ambivalence about different obligations inherent in their roles as supervisor, employee, or parent), role ambiguity (i.e., lack of clarity about their place in the organization), and role overload (i.e., feelings of being overwhelmed by their role obligations), they are likely to express lower levels of commitment to the organization. These variables become critically important when the employee is faced with organizational or subcultural/peer norms that affront his/her ethical, ideological, or professional values. In these cases, the employee has the option of conceding to workplace demands (and sacrificing values), defying orders/expectations, and/or actively engaging in subversive actions.

PERSONALITY AND JOB PERFORMANCE

While much of the aforementioned research investigated the workplace correlates of loyalty and commitment, researchers have also delved into the personal determinants of job performance. Much of this work has applied existing self-report measures of personality to the assessment of the personality traits associated with honest and constructive organizational citizenship behaviors. The utility of

recognized personality measures is rooted in the wealth of existing data about their psychometric qualities, the inclusion of so-called "lie scales" to detect socially-desirable response biases (i.e., faking a good presentation), and their use of profiles rather than cut scores for interpretation. Parker and Wiskoff (1991) identified the California Psychological Inventory (CPI) as one of the "premier temperament instruments available for the prediction of occupational offenses" (p. iv) and noted that the CPI's Socialization, Responsibility, Self-Control, Tolerance, and Achievement via Conformance subscales have demonstrated repeatedly an ability to distinguish between white collar offenders and non-offenders in a variety of settings" (p. iv). Other measures suitable for assessment of the Big Five personality factors include the Myers-Briggs Type Indicator (MBTI), the Hogan Personality Inventory (HPI), the Minnesota Multiphasic Personality Inventory (MMPI), the International Personality Item Pool (IPIP), the NEO Personality Inventory-Revised (NEO PI-R), and the 16 Personality Factor Questionnaire (16PF).

The appeal of the Five Factor Model (FFM) of personality rests in its ability to provide a taxonomy for a set of core personality dimensions that remain stable across most of the lifespan. The five factors for which the model is named are: extroversion, conscientiousness, emotional stability, agreeableness, and openness to experience. According to Barrick, Mount, and Judge (2001), the Big Five personality factors can be described as follows:

> "Extroversion consists of sociability, dominance, ambition, positive emotionality, and excitement-seeking. Cooperation, trustfulness, compliance, and affability define agreeableness. Emotional stability is defined by the lack of anxiety, hostility, depression, and personal insecurity. Conscientiousness is associated with dependability, achievement striving, and planfulness. Finally, intellectance, creativity, unconventionality, and broad-mindedness define openness to experience" (p. 4).

The FFM has been demonstrated effectively to subsume a majority of recognized personality traits and descriptors, with recent analysis suggesting that only the following nine clusters fall outside of the FFM: religiosity, honesty, deceptiveness, conservativeness, thrift, conceit, humorousness, sensuality, and masculinity/femininity (Paunonen and Jackson, 2000). One should note that while these nine clusters do not appear to "fit" within the FFM, there is evidence of strong correlations between some FFM dimensions and these factors.

Research on the connection between personality and job performance has multiplied in the last decade and has revealed that personality testing "contributes unique information to the prediction of job performance, over and above that offered by methods such as cognitive ability testing and managerial assessment centers" (Kierstead, 1998, p. 2). A meta-analytic overview of this body of work finds that conscientiousness is positively related to job performance over a wide variety of mainstream jobs, with the exception of especially creative vocations such as musician/artist. Conscientiousness has also been found to predict success in teamwork and training performance across occupations (Barrick et al., 2001). In all, conscientiousness has emerged as the most potent and consistent predictor of workplace performance among the Big Five factors. Emotional stability was identified as a general predictor of overall work performance, a predictor of teamwork success, and a predictor of job performance among police as well as skilled and semi-skilled workers (Barrick et al.).

While existing meta-analyses have supported the predictive utility of conscientiousness and emotional stability scores in predicting work performance across occupational types, they have uncovered differences in predictive utility among the remaining three factors. Specifically, extroversion has been found to predict teamwork success, training performance, managerial performance, and police officer performance; agreeableness has been found to be a weak predictor of teamwork success; and openness has been weak predictor of training proficiency (Barrick et al., 2001). This work has highlighted the importance of matching job type to personality in order to maximize predictive accuracy. For example, sales jobs require high levels of extroversion and agreeableness, senior management positions require high levels of openness to experience and extroversion, and police work requires high levels of emotional stability and agreeableness (Kierstead, 1998).

Occupational Crime Prevention

Given the scope and magnitude of occupational crime, scholars have attempted to review corporate strategies for the reduction and prevention of occupational crime. These reviews have compiled lessons learned from successful and unsuccessful intervention and prevention programs, with the hopes of minimizing the fiscal, organizational, and societal harm caused by occupational crime. Much of this work has focused on the reduction of employee theft, with much less attention to other areas of occupational crime.

Most crime prevention strategies (e.g., neighborhood watch programs) are designed to reduce the opportunity for crime rather than to alter offender characteristics or motivations (Rosenbaum, 1988). At the corporate level, crime prevention programs are intended to reduce criminal opportunities and maximize the likelihood of detection of criminal activity (Traub, 1996). While the nature of these programs may vary from corporation to corporation, they can be grouped into one of the following three categories: 1) programs emphasizing security and prosecution, 2) programs emphasizing prevention through hiring practices and employee awareness programs, and 3) programs emphasizing deterrence through the reporting of criminal activity.

SECURITY AND PROSECUTION

Programs emphasizing security and prosecution typically rely heavily on the use of contract security personnel and/or private corporate justice. Corporations have a long history of relying upon private policing and contract security in the battle against external and internal crime (Traub, 1996). The use of private policing has been fostered by the promise of sophisticated surveillance equipment, trained contract personnel, and avoidance of the negative publicity, cost, and time delays inherent in public apprehension and prosecution of employees. These perceived benefits have led many corporations to develop aggressive detection programs built around contract security personnel, internal policies and procedures for discipline and punishment, and emphasis of prevention practices.

The punishment of employee offenders has emerged as a recurrent challenge for corporations. The time-consuming nature of public prosecution of employees has led many corporations to revert to terminating employment with no further

prosecution, thus leaving many offenders unpunished (Traub, 1996). The limitations of this approach have led many more corporations to seek restitution, or civil recovery, to recoup losses. Research suggests that approximately 70 percent of companies use civil recovery as an alternative to criminal prosecution and view it as an effective deterrent that generates revenue to offset security costs (Traub). While civil recovery is not a feasible option within the intelligence community, the above research reinforces the need for aggressive detection and punishment of security violations (Timm, 1991). This approach decreases the likelihood of employee deviance by increasing the perceived risks of criminal behavior and decreasing the perceived opportunity for such behavior.

Most security programs include control techniques such as identification systems, surveillance/alarm systems, secret shoppers, and even sting operations (Taylor & Prien, 1998). These control techniques are intended to restrict access to the workplace, assist in surveillance of certain critical locations (e.g., dumpsters, storage rooms, vaults), and complete periodic, unannounced audits of supplies and inventory (Traub, 1996). Research on the utility of these systems has highlighted problems related to ease of evasion and likelihood of human error in performing these control functions. The usefulness of control techniques is further limited by the fact that they work to limit opportunity only and thus allow other criminogenic factors to operate unfettered.

While the use of contract security personnel and surveillance devices enhances physical security, corporate policy has changed to enhance organizational security and accountability. Most corporations have adopted organizational structures and policies designed to minimize fraud and crime vulnerability via thorough checks and balance systems (Grabosky and Duffield, 2001). The existence of boards of directors comprised of external members, the use of external accounting firms, and the assignment of multiple employees to certain tasks (e.g., document disposal, entry into bank vaults) attest to the commonplace nature of these prevention strategies. These practices are further enhanced by mission statements, training programs, and promotion practices that ensure the development of ethical and responsive supervisors and managers to serve as role models for prosocial workplace behavior (Dunkelberg and Robin, 1998).

SCREENING AND EDUCATION

Many corporations attempt to reduce occupational crime by implementing pre-employment screening procedures and awareness programs for its employees.

Commonly used pre-employment screening procedures include computer-administered interviews with questions specific to job-related tasks (e.g., Greentree Job Interview), honesty or integrity testing, reference and credit checks, background investigations, and drug testing (Traub, 1996; Geis, 1994; Kurke, 1991). While these techniques may assist in screening out the individuals at most risk for committing occupational crime, their usefulness in distinguishing among the bulk of applicants remains in question.

Since the passage of the Employee Polygraph Protection Act of 1988, employers have increasingly used integrity/honesty testing to evaluate the trustworthiness (or conversely, the "theft-proneness") of potential employees (Lasson, 1992). The interest in this form of pre-employment screening has spawned over 50 commercially available integrity tests, which are administered to approximately five million employees annually by an estimated six thousand organizations (Camara and Schneider, 1994). These tests have been exceptionally popular in the retail sector, where estimates of self-reported involvement in workplace theft fall between 32 percent and 75 percent (Bernardin and Cooke, 1993).

Integrity tests are typically pen-and-pencil measures that take the form of overt integrity/honesty tests or veiled purpose tests. Overt integrity tests directly query respondents' views about dishonesty and their past involvement in dishonest or rule-breaking acts. In contract, veiled purpose tests pose questions designed to provide interpreters with information about underlying personality features hypothesized to be relevant to workplace behavior (U.S. Congress, 1990). In the past ten years, considerable debate regarding the relative utility and validity of these tests has raged among test developers, government reviewers, and the Science Directorate of the American Psychological Association (Lasson, 1992). While the APA's task force on integrity testing endorsed the use of tests supported by psychometric data on the validity and reliability of the instrument, the Office of Technology's report (U.S. Congress, 1990) on the use of integrity tests for pre-employment screening concluded that the practice was scientifically baseless.

The conflicting outcomes of these reports were due in part to the lack of conceptual and definitional clarity about what constitutes an integrity test. Publishers of these tests alternately have termed them tests of counterproductivity, honesty, job performance, attitudes, integrity, and reliability (Camara and Schneider, 1994). The conflicting report findings were also fostered by the different foci of the study groups, the use of different criteria for assessing validity, and the significant difference in the number of studies reviewed. Despite the divergence in

the reports' conclusions, both agreed on the 1) "overly broad and ill-defined" (Camara and Schneider, p. 115) nature of the integrity construct, 2) the many problems inherent in test users' reliance upon cutting scores for rendering classification decisions, and 3) the challenges to quality research posed by proprietary test development.

While analysis of the existing literature on integrity tests uncovers more questions than answers, it reveals some interesting avenues for future study. Ones, Viswesvaren, and Schmidt (1995) report a strong correlation between integrity test scores and certain "Big Five" personality dimensions. Specifically, they noted that a linear composite score of the conscientiousness, agreeableness, and emotional stability dimensions of the Big Five group account for a greater variance in integrity test scores than any one Big Five factor alone. Other researchers have commented on the need to explore the connection between Big Five personality dimensions and integrity tests, and Bernardin and Cooke (1993) allude to the possibility that integrity testing may offer little additional information beyond that which is provided by personality tests tapping the Big Five dimensions.

Education and awareness programs are designed to inform employees of the costs of employee crime and the role that each employee can play in reducing these costs. These programs are informed largely by expectancy theory, which suggests that employee motivation is dependent upon the extent to which the employee believes that 1) his/her efforts will result in task completion, 2) completing a task will lead to a particular outcome, and 3) the outcome is of value to him/her (Taylor and Prien, 1998). According to this theory, successful awareness programs help employees understand that their actions will affect the performance of the company, that the company's well-being is important to their personal well-being, and that they will benefit from working for the company's success. These conditions are typically fostered by open and frequent discussions of employee crime, its negative consequences, and the ways in which individuals can combat it (Greenberg, 1997; Taylor and Prien). This approach fosters employee involvement and feedback, clearly establishes strong corporate ethics against theft and crime, and challenges rationalizations about the harmlessness of employee theft. Recent research determined that approximately 80 percent of companies use some kind of awareness program and that they view it to be their most important and effective method of reducing employee theft (Traub, 1996).

REPORTING AND WHISTLEBLOWING

Private corporations have begun to actively encourage employee reporting of occupational crime in the face of the limited success of security and surveillance efforts. Employee reporting may be fostered through the use of telephone hotlines, corporate reward and incentive programs, ombudsmen, and other programs (Traub, 1996; Grabosky and Duffield, 2001). The success of these programs depends largely upon the guarantee of anonymity and the credible and consistent response to employee reports. Some companies have enlisted the help of third-party firms to receive employee calls 24 hours per day and to provide live respondents who are trained to collect all pertinent information. Hotlines have also been used effectively to elicit employee concerns about the workplace and to answer employee questions about working conditions, pay, and benefits (Greenberg, 1997). This application of employee hotlines has successfully enhanced employee perceptions of corporate fairness and interest and has thus decreased theft designed to "even the score" between employee and employer (Greenberg).

Corporate reward and incentive programs (CRIPs) have emerged to maximize employee reporting by promising anonymity, providing monetary compensation, and characterizing reporting as a job responsibility. Research on these incentive programs has found that monetary rewards are more enticing than bonus point systems, store merchandise, additional discounts, and/or profit sharing (Traub, 1996). While some corporations develop and administer their own incentive programs, many turn to vendor-operated programs that offer greater availability, perceived anonymity, and experience in tailoring the program to corporate needs.

The study of whistle-blowing behavior has been stimulated by the compelling and prominent media coverage of employees who speak out against their employers. According to this research, the bulk of whistleblowing incidents involve internal reports/complaints, while a smaller percentage (21 percent) involve reports to external officials or agencies (Miethe and Rothschild, 1994). Researchers have suggested that whistleblowing is more likely among employees with internal loci of control, higher levels of moral development and self efficacy, and universal standards of justice (Glazer and Glazer, 1989; Miethe and Rothschild).

Given the pressures of organizational loyalty and the possibility of retaliation, it is not surprising that most employees silently observe wrong-doing. Miethe and Rothschild's (1994) overview of employee reporting found that a startling number of subjects reported observing wrongdoing such as fraud, waste, mismanagement, or hazardous working conditions (from 17-82 percent). Of these, the majority silently

observed the behavior, with smaller percentages choosing to pursue internal reports. These data clearly suggest that whistleblowing is an underutilized aid in the fight against occupational and organizational crime. Whistleblowing behavior may be encouraged through improvement of internal and external communication systems (e.g., use of hotlines, mediators), promotion of professional and ethical codes of conduct, and de-stigmatization of reporting behavior (Miethe and Rothschild).

PERSONNEL MANAGEMENT TECHNIQUES AND OTHER CORPORATE STRATEGIES

In the battle against employee theft, corporations have developed personnel management techniques based on research regarding the social psychology of group dynamics. Recent scholarship on group behavior in organizational settings has underscored the significant contribution of social dynamics to employee theft and occupational crime. In response to these findings, corporations have attempted to develop strategies designed to maximize organizational citizenship behaviors and minimize the negative impact of work group norms condoning theft.

Frequent rotation of group membership has been implemented in an effort to vitiate the influence of negative group norms with some success (e.g., airline crews). Rotating group membership is presumed to retard the development of negative work group norms and to enhance communication and overall group functioning (Greenberg, 1997). The success of this strategy depends in large part upon the availability of a large pool of employees with interchangeable skills. Further, every effort must be made to enhance positive social bonding (i.e., team-building) in these transient work groups to facilitate cooperation and reduce isolation and deviance.

Corporations have also begun to focus on improving the quality of employer-employee relationships to limit feelings of alienation, exploitation, and dissatisfaction among employees (Greenberg, 1997). This effort is intended to reduce employee motivation to strike back at their employer and/or to resort to theft/crime as a form of distributive justice. Growing attentiveness to the employer-employee relationship has also led to employee participation in decision-making about what materials or items may be taken from the job site without penalty. In all, this strategy attempts to improve communication and collaboration, clearly demarcate the boundary between criminal and non-criminal behavior, and increase employees' perceived status (Greenberg; Timm, 1991).

Conclusions and Future Directions

The private sector has grappled with the problem of occupational crime for decades and has unsuccessfully struggled to eliminate it. The limited success of prevention programs stems in part from the multiply-determined, complex nature of occupational crime and the environmental conditions that provide ample opportunity for crime in the workplace. In this regard, corporate America shares many of the same struggles faced by personnel security managers attempting to deter espionage and security violations. In many ways, both entities face the difficult task of distinguishing loyal, skilled, and tenured employees from those employees likely to engage in occupational crime (whether it be embezzlement or treason).

Given the difficulty in making such decisions, researchers are increasingly encouraging the use of risk assessment techniques in the evaluation of employees (see Meehl 1953; Monahan, 1997; Freudenburg, 1988). Support for the risk assessment paradigm is rooted in scholarship regarding decision theory, probability theory, and epidemiology. Scholarship in this area has highlighted the risks inherent in making categorical decisions about low probability events (e.g., murder, suicide, embezzlement, espionage). Specifically, writers have emphasized the following sources of error in decision-making under these conditions: 1) low base rates,[2] 2) limits in scientific knowledge, 3) cognitive biases and the use of flawed heuristics,[3] 4) the use of dichotomous conclusions, and 4) limited feedback about outcomes and inaccurate appraisal of accuracy.

In order to enhance the accuracy of decision-making, scholars recommend 1) clearly defining the behavior/outcome of interest, 2) identifying relevant base rates and the impact of individual-specific variables (i.e., risk factors) on these base rates, 3) posing conclusions in a probabilistic manner, and 4) articulating recommendations that minimize risk factors for outcome of interest. These

[2] Probability theory tells us that low base rate events lead decision-makers to overestimate the likelihood of the event (Freudenburg, 1988).

[3] Relevant cognitive biases include: 1) confirmatory bias (selective overvaluation of evidence that supports one's beliefs, stereotypes, and conclusions), 2) illusory correlation (mistakenly connecting two pieces of information), 3) self-fulfilling prophecy (prediction shapes decisions/behaviors to insure that predicted outcome occurs), 4) limits to configural reasoning (inability to process complex set of information accurately), and 5) errors in the selection and optimal weighting of variables of interest.

recommendations have formed the backbone of a growing literature on risk assessment, a practice that is designed to determine the relative probability of a specified outcome based on a consideration of the ways in which relevant base rates and risk factors influence a given case. Given this definition, accurate risk assessment hinges on the identification of the base rate of a given behavior and collection of case-specific information about the risk factors for this behavior.

The risk assessment approach de-emphasizes dichotomous decision-making about employees (bad employee vs. good employee) and instead encourages the holistic evaluation of the risk factors and protective factors unique to each employee. This approach also underscores the need for repeated assessments as circumstances change. Given that risk factors for any given outcome can be numerous, Monahan (1997) has suggested an organizational scheme consisting of the following risk factor categories: 1) dispositional variables (i.e., enduring personal features), 2) historical/background variables (i.e., important events or experiences that may impact current behavior), 3) contextual/situational variables (i.e., characteristics of current environment that shape behavior), and 4) clinical variables (i.e., dynamic aspects of emotional, cognitive, and behavioral functioning. Appendix B applies this taxonomy to the various risk factors for occupational crime involvement, and highlights the overlap with identified risk factors for treason. While these categories map onto the DCID 6/4 adjudicative guidelines adequately, there is room for modification of these categories to suit the special needs of the intelligence community.

The results of a risk assessment evaluation are then used as the basis for a probabilistic statement of risk level. In so doing, the employer is provided with a well-rounded view of the characteristics, experiences, contextual factors, and behaviors that place the employee at risk for occupational deviance. This knowledge may then be used to guide job assignments, supervisory style, and prevention/intervention efforts. This risk-based approach also allows the retention of employees with special or unique competencies who may have otherwise "flunked out" of traditional evaluation processes. Further research is clearly needed to investigate the risk and protective factors for espionage, computer violations, and other security violations. Successful completion of this research depends on clear definition of the problem behavior and separate investigations of the risk and protective factors for *each* problem behavior. This research may very well serve as the basis for changes in the scope of the SSBI, the questions posed by investigators, and the decision-making process performed by adjudicators.

This new probabilistic approach to assessing employee risk for deviance complements the development of new procedures and policies regarding occupational crime. Researchers agree that speedy apprehension, assertive prosecution, and clear communication regarding perpetrators' cases and outcomes serve as powerful preventive measures. These actions, together with security briefings tailored to the employee's unique risk profile, may serve a potent educational and prevention function. Finally, open discussion of occupational deviance, together with philosophical and structural support of supervisory and co-worker reporting of occupational deviance, may enhance existing surveillance and detection techniques. Research regarding the productivity of supervisory and co-worker reporting is clearly needed to elucidate the factors that encourage and discourage such reporting. All in all, research on the aforementioned areas of change is essential to further understand the determinants of occupational deviance and the possible points of intervention and prevention.

References

Akers, R.L. (2000). *Criminological Theories: Introduction, evaluation and application.* 3rd Ed. Los Angeles: Roxbury Publishing Company.

Barrick, M.R., Mount, M., & Judge, T.A. (2001). The FFM personality dimensions and job performance: Meta-Analysis of Meta-Analyses. International Journal of Selection and Assessment, 9, 9-30.

Benini, C. (2000). Tried and true. *Meetings and Conventions*, Nov. 2000.

Benson, M.L. (1985). Denying the guilty mind: Accounting for involvement in a white collar crime. *Criminology, 23,* 583-607.

Benson, M.L., & Moore, E. (1992). Are white-collar and common offenders the same? An empirical and theoretical critique of a recently proposed general theory of crime. *Journal of Research in Crime and Delinquency, 29,* 251-272.

Bernardin, H.J., & Cooke, D.K. (1993). Validity of an honesty test in predicting theft among convenience store employees. *Academy of Management Journal, 36,* 1097-2008.

Bintliff, R.L. (1993). *White Collar Crime Prevention and Detection.* Englewood Cliffs, NJ: Prentice-Hall.

Braithwaite, J. (1985). White collar crime. *Annual Review of Sociology, 11*, 1-25.

Business Wire. (1998). Study finds biggest declines in employee loyalty among young workers, customer service employees, high-tech workers, and large companies. September 17, 1998.

Camara, W.J., & Schneider, D.L. (1994). Integrity tests: Facts and Unresolved Issues. *American Psychologist, 49,* 112-119.

Clinard, M.B., & Yaeger, P.C. (1980). *Corporate Crime.* New York: The Free Press.

Coleman, J.W. (2001*). The Criminal Elite: Understanding White-Collar Crime.* 5th Ed. New York: Worth Publishers, Incorporated.

Coleman, J.W. (1989). *The Criminal Elite: The Sociology of White Collar Crime.* New York: St. Martin's Press.

Coleman, J.W., & Ramos, L.L. (1998). Subcultures and deviant behavior in the organizational context. *Research in the Sociology of Organizations, 15,* 3-34.

Collins, J.M. (1993). Personnel selection and white collar criminality. Technical Report. Department of the Navy/PERSEREC.

Cressey, D. (1953). *Other People's Money: A study in the social psychology of embezzlement.* Belmont, CA: Wadsworth.

Daly, K. (1989). Gender and varieties of white collar crime. *Criminology, 27,* 769-794.

Duffield, G., & Grabosky, P. (2001). The psychology of fraud. No. 199. *Trends & Issues in Crime and Criminal Justice.* Canberra, Australia: Australian Institute of Criminology.

Dunkelberg, J., & Robin, D.P. (1998). The anatomy of fraudulent behavior. *Business Horizons, 41,* 77-82.

Freudenburg, W.R. (1988). Perceived risk, real risk: Social science and the art of probabilistic risk assessment. *Science, 242,* 44-49.

Geis, G. (1994). Trade secret theft as an analogue to treason. In Sarbin, Carney, & Eoyang (Eds.), *Citizen Espionage.* Westport, CT: Praeger Publishers.

Glazer, M.P., & Glazer, P.M. (1989). *The Whistleblowers: Exposing corruption in government and industry.* New York: Basic Books.

Gottfredson, M. R. & Hirschi, T. (1990). *A General Theory of Crime*. Stanford, CA: Stanford University Press

Grabosky, P., & Duffield, G. (2001). Red flags of fraud. No. 200. *Trends & Issues in Crime and Criminal Justice.* Canberra, Australia: Australian Institute of Criminology.

Greenberg, J. (1997). The STEAL Motive: Managing the social determinants of employee theft. In Giacalone, R., & Greenberg, J. (Eds.), *Antisocial Behavior in Organizations*, p. 85-108. Thousand Oaks, CA: Sage Publications.

Heuer, R.J. (1995). *Character Traits: Background Information for Security Personnel.* Washington, D.C.: Office of Personnel Security.

Hirschman, A.O. (1970). *Exit, Voice and Loyalty: Responses to decline in firms, organizations, and states.* Cambridge, MA: Harvard University Press.

Hogan, R., & Hogan, J. (1997). The mask of integrity. In

Giacalone, R. & Greenberg, J. (Eds.), *Antisocial Behavior in Organizations*, p. 93-105. Thousand Oaks, CA: Sage Publications.

Hollinger, R.C. (2001). *2001 National Retail Security Survey Final Report.* Gainesville, FL: Security Research Project.

Kierstead, J. (1998). Personality and Job Performance: A research overview. Unpublished paper.

Kurke, M.I. (1991). Dishonesty, corruption and white collar crime: Predicting honesty and integrity in the workplace. *Forensic Reports, 4,* 149-162.

Lasley, J. R. (1988). Toward a control theory of white-collar offending. *Journal of Quantitative Criminology, 4(4),* 347-362.

Lasson, E.D. (1992). How good are integrity tests? *Personnel Journal, 71,* 35-37.

Leck, J.D., & Saunders, D.M. (1992). Hirschman's loyalty: Attitude or behavior? *Employee Responsibilities and Rights Journal, 5,* 219-229.

Mathieu, J.E., & Zajac, D.M. (1990). A review and meta-analysis of the antecedents, correlates and consequences of organizational commitment. *Psychological Bulletin, 108,* 171-194.

Meehl, P.E. (1954). *Clinical Versus Statistical Prediction: A theoretical analysis and review of the evidence.* Minneapolis: University of Minnesota Press.

Minton, J.W. (1992). The loyalty construct: Hirschman and beyond. *Employee Responsibilities and Rights Journal, 5,* 273-281.

Monahan, J. (1997). Actuarial support for the clinical assessment of violence risk. *International Review of Psychiatry, 9,* 167-178.

Ones, D., Viswesvaran, C., & Schmidt, F.L. (1995). Integrity tests: Overlooked facts, resolved issues, and remaining questions. *American Psychologist, 50,* 456-457.

Parker, J.P., & Wiskoff, M.F. (1991). *Temperament Constructs Related to Betrayal of Trust.* Monterey, CA: Defense Personnel Security Research Center.

Paunonen, S.V., & Jackson, D.N. (2000). What is beyond the Big Five?: Plenty! *Journal of Personality, 68,* 821-835.

Pherson, K.H. (2001). *Financial Considerations as Related to Adjudicative Guideline F.* Washington, D.C.: Personnel Security Managers' Research Program.

Poveda, Tony G. (1994). *Rethinking White Collar Crime.* Westport, CT: Praeger.

Rosenbaum, D.P. (1988). Community crime prevention: A review and synthesis of the literature. *Justice Quarterly, 5,* 323-395.

Sheppard, D. (1999). Creating employee loyalty is more complex than ever. *Los Angeles Business Journal,* Nov. 15.

Simon, D.R., & Eitzen, D.S. (1990). *Elite Deviance.* Boston: Allyn and Bacon.

Smith, D. (2000). Employee loyalty best defence against turnover. *Computing Canada,* Feb. 4, 2000.

Robinson, D.L., & O'Leary-Kelly, A.M. (1998). Monkey see, monkey do: The influence of work groups on the antisocial behavior of employees. *Academy of Management Journal, 41,* 658-672.

Sutherland, E.H. (1983). *White Collar Crime.* Westport, CT: Greenwood Publishing Group, Inc.

Taylor, R.R., & Prien, K.O. (1998). Preventing employee theft: A behavioral approach. *Business Perspectives, 10,* 9-13.

Terpstra, D. E., Rozell, E.J., & Robinson, R. K. (1993). The influence of personality and demographic variables on ethical decisions related to insider trading. *Journal of Psychology, 127(4),* 375-389.

Timm, H. (1991). Who will spy? *Security Management,* 49-53.

Traub, S.H. (1996). Battling employee crime: A review of corporate strategies and programs. *Crime and Delinquency, 42,* 244-256.

Unethical workers and illegal acts. (1999, May-June). *Society, 36,* 2-4.

United States Congress, Office of Technology Assessment. (1990). *The Use of Integrity Tests for Pre-Employment Screening, OTA-SET-442.* Washington, D.C.: U.S. Government Printing Office.

Weisburd, D., Chayet, E., & Waring, E. (1990). White collar crime and criminal careers: Some preliminary findings. *Crime and Delinquency, 36,* 342-355.

Weisburd, D., Wheeler, S., Waring, E., & Bode, N. (1991). *Crimes of the Middle Classes.* New Haven: Yale University Press.

Wheeler, S., Weisburd, D., Waring, E., & Bode, N. (1988). White collar crimes and criminals. *American Criminal Law Review, 25,* 331-357.

Withey, M.J., & Cooper, W.H. (1992). What's loyalty. *Employee Responsibilities and Rights Journal, 5,* 231-240.

Zietz, D. (1981). *Women Who Embezzle or Defraud: A study of convicted felons.* New York: Praeger.

Appendix A. Antecedents and Correlates of Organizational Commitment (OC): Summary of Mathieu & Zajac's (1990) Meta-Analysis

Antecedents

Factor	Relation to OC	Moderator?
Personal Characteristics		
Age	Moderate positive correlation	+attitudinal
Gender	Weak correlation (women more committed)	Not Significant (NS)
Education	Weak negative correlation	+attitudinal
Marital Status	Weak positive correlation	Insufficient data
Position Tenure	Weak positive correlation	+attitudinal
Organization Tenure	Weak positive correlation	NS
Self-Perceived Competence	Strong positive correlation	Insufficient data
Ability	Weak positive correlation	Insufficient data
Salary	Weak positive correlation	Insufficient data
Protestant Work Ethic	Moderate positive correlation	Insufficient data
Job Level	Weak positive correlation	NS
Role States		
Role Ambiguity	Moderate negative correlation	Insufficient data
Role Conflict	Moderate negative correlation	Insufficient data
Role Overload	Moderate negative correlation	Insufficient data
Job Characteristics		
Skill Variety	Moderate positive correlation	Insufficient data
Task Autonomy	Weak positive correlation	Insufficient data
Challenge	Weak positive correlation	Insufficient data
Job Scope	Strong positive correlation	Insufficient data
Group/Leader Relations		
Group Cohesion	Weak positive correlation	Insufficient data
Task Interdependence	Moderate positive correlation	Insufficient data
Leader-Initiating Structure	Moderate positive correlation	Insufficient data
Leader Consideration	Moderate positive correlation	Insufficient data
Leader Communication	Strong positive correlation	Insufficient data
Participative Leadership	Moderate positive correlation	Insufficient data
Organizational Characteristics		
Size	Weak negative correlation	Insufficient data
Centralization	Weak negative correlation	Insufficient data

Correlates

Factor	Relation to OC	Moderator?
Motivation		
Overall	Strong positive correlation	Insufficient data
Job Involvement	Strong positive correlation	+attitudinal
Stress	Strong negative correlation	NS
Professional Commitment	Strong positive correlation	NS
Union Commitment	Moderate positive correlation	Insufficient data
Job Satisfaction		
Overall	Strong positive correlation	+attitudinal
Intrinsic	Strong positive correlation	Insufficient data
Supervision	Strong positive correlation	+attitudinal
Co-Workers	Moderate positive correlation	NS
Promotion	Moderate positive correlation	+attitudinal
Pay	Moderate positive correlation	NS
Work Itself	Strong positive correlation	+attitudinal

NOTE: "+attitudinal" indicates that variable has stronger relation with attitudinal than calculative commitment

Appendix B. Overview of Risk Factors for Occupational Crime Involvement

<table>
<tr><th>Dispositional Factors</th><th>Historical Factors</th><th>Contextual or Situational Factors</th><th>Clinical Factors</th></tr>
<tr><td rowspan="8">Male gender
External locus of control
Strong competitive drive
Preference for risk-seeking
Impulsivity
Ability to rationalize behavior
Unconformity/rejection of social mores
Fear of failure/falling
Low self-esteem</td><td rowspan="2">Individual Factors
Prior criminal arrest
History of financial problems</td><td>Individual Factors
Nonshareable problem
Lack of job satisfaction
Low employee loyalty
Low organizational commitment
Anger/Alienation/Revenge
Greed
Easy access to assets</td><td rowspan="8">Drug Abuse
Alcohol Abuse
Active mental illness</td></tr>
<tr><td>Interpersonal Factors
Relationship problems
Family/peer pressure for success</td></tr>
<tr><td rowspan="6">Organizational Factors
History of successful crime perpetrators
History of lax prosecutorial attitudes</td><td>Organizational Factors
Immersion in deviant work group
Pay inequity
Low levels of guardianship (poor security)
Ineffective supervision
Strong pressures for profit/gain
Questionable corporate values</td></tr>
<tr><td>Professional Factors
Weak professional code of ethics
Permissive view of violators</td></tr>
<tr><td>Social/Cultural Factors
Permissive cultural norms
Weakening of prohibitions against illegal behavior</td></tr>
<tr><td>Governmental/Legal Factors
Weak regulatory standards or practices
Lax prosecutorial approaches</td></tr>
</table>